NOTICE OF INTENT

Department of Environmental Quality
Office of Environmental Assessment
Environmental Planning Division

Control of Emissions of Nitrogen Oxides (NOx)
(LAC 33:III.2201) (AQ234)

Under the authority of the Environmental Quality Act, R.S. 30:2001 et seq., and in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., the secretary gives notice that rulemaking procedures have been initiated to amend the Air regulations, LAC 33:III.2201 (Log #AQ234).

The revision proposes reasonably available control technology (RACT) rules for sources of nitrogen oxides (NOx) emissions in the five-parish Baton Rouge ozone nonattainment area that are subject to the new lower major stationary source threshold of 25 tons per year. The proposed revision also includes rule clarifications. On April 24, 2003, the Environmental Protection Agency reclassified or "bumped up" by operation of law the Baton Rouge ozone nonattainment area from a classification of "serious" to "severe", effective June 23, 2003 (68 FR 20077). The five-parish Baton Rouge ozone nonattainment area includes the parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge. Under Section 182(i) of the 1990 Clean Air Act Amendments (CAAA), serious ozone nonattainment areas reclassified to severe are required to submit State Implementation Plan revisions addressing the severe area requirements for the one-hour ozone National Ambient Air Quality Standard. Under Section 182(d) of the 1990 CAAA, severe area plans must include requirements for RACT rules for sources of NOx emissions of 25 tons per year, which is the new lower major source threshold in the five-parish Baton Rouge ozone nonattainment area. This rule is also being proposed as a revision to the Louisiana State Implementation Plan for air quality. The basis and rationale of this rule are to comply with the provisions of the 1990 Clean Air Act Amendments.

This proposed rule meets an exception listed in R.S. 30:2019(D)(2) and R.S. 49:953(G)(3); therefore, no report regarding environmental/health benefits and social/economic costs is required. This proposed rule has no known impact on family formation, stability, and autonomy as described in R.S. 49:972.

A public hearing will be held on September 24, 2003, at 1:30 p.m. in the Galvez Building, Room C111, 602 N. Fifth Street, Baton Rouge, LA 70802. The hearing will also be for the revision to the State Implementation Plan (SIP) to incorporate this proposed rule. Interested persons are invited to attend and submit oral comments on the proposed amendments. Should individuals with a disability need an accommodation in order to participate, contact Lynn Wilbanks at the address given below or at (225) 219-3550. Free parking is available across the street in the Galvez parking garage when the parking ticket is validated by department personnel at the hearing.

All interested persons are invited to submit written comments on the proposed regulation. Persons commenting should reference this proposed regulation by AQ234. Such comments must be received no later than October 1, 2003, at 4:30 p.m., and should be sent to Lynn Wilbanks, Office of Environmental Assessment, Regulation Development Section, Box 4314, Baton Rouge, LA 70821-4314 or to FAX (225) 219-3582 or by e-mail to lynnw@ldeq.org. Copies of this proposed regulation

can be purchased by contacting the DEQ Public Records Center at (225) 219-3168. Check or money order is required in advance for each copy of AQ234.

This proposed regulation is available for inspection at the following DEQ office locations from 8 a.m. until 4:30 p.m.: 602 N. Fifth Street, Baton Rouge, LA 70802; 1823 Highway 546, West Monroe, LA 71292; State Office Building, 1525 Fairfield Avenue, Shreveport, LA 71101; 1301 Gadwall Street, Lake Charles, LA 70615; 201 Evans Road, Building 4, Suite 420, New Orleans, LA 70123; 111 New Center Drive, Lafayette, LA 70508; 104 Lococo Drive, Raceland, LA 70394 or on the Internet at http://www.deq.state.la.us/ planning/regs/index.htm.

James H. Brent, Ph.D.
Assistant Secretary

Title 33
ENVIRONMENTAL QUALITY
Part III. Air

Chapter 22. Control of Emissions of Nitrogen Oxides (NO_x)

§2201. Affected Facilities in the Baton Rouge Nonattainment Area and the Region of Influence

A. - A.3 …

B. Definitions. Unless specifically defined in this Subsection or in LAC 33:III.111 or 502, the words, terms, and abbreviations in this Chapter shall have the meanings commonly used in the field of air pollution control. For purposes of this Chapter only, the following definitions shall supersede any definitions in LAC 33:III.111 or 502.

* * *

Affected Facility—any facility within the Baton Rouge Nonattainment Area ~~or the Region of Influence~~ with one or more affected point sources that collectively emit or have the potential to emit ~~50~~25 tons or more per year of NO_x, unless exempted in Subsection C of this Section, or any facility within the Region of Influence with one or more affected point sources that collectively emit or have the potential to emit 50 tons or more per year of NO_x, unless exempted in Subsection C of this Section.

* * *

Averaging Capacity—the average actual heat input rate in million British thermal units per hour (MMBtu/hour) at which an affected point source operated during the ozone season of the two calendar years of 2000 and 2001 (e.g., the total heat input for the period divided by the actual hours of operation for the same period). Another period may be used to calculate the averaging capacity if approved by the department. For units with permit revisions that legally curtailed capacity or that were permanently shut down after 1997, the averaging capacity is the average actual heat input during the last two ozone seasons of operation before the curtailment or shutdown.

* * *

Combined Cycle—a combustion equipment configuration that generates electrical or mechanical power with a stationary gas or liquid-fired turbine and/or a stationary internal combustion engine and that recovers heat from the discharge within equipment to heat water or generate steam.

* * *

Low Ozone Season Capacity Factor Boiler or Process Heater/Furnace—a boiler or process heater/furnace in the Baton Rouge Nonattainment Area with maximum rated capacity greater than or equal to 40 MMBtu/hour and ozone season heat input less than or equal to 0.46×10^{11} Btu, or in the Region of Influence with maximum rated capacity greater than or equal to 80 MMBtu/hour and ozone season heat input less than or equal to 0.92×10^{11} Btu.

* * *

Nitrogen Oxides (NO_x)—the sum of the nitric oxide and nitrogen dioxide in a stream as measured by the test methods in Subsection G of this Section~~, collectively expressed as nitrogen dioxide~~.

* * *

C. …

1. boilers and process heater/furnaces with a maximum rated capacity of less than 40 MMBtu/hour in the Baton Rouge Nonattainment Area or less than 80 ~~million British thermal units (~~MMBtu~~) per~~/hour in the Region of Influence;

2. stationary gas turbines with a megawatt rating based on heat input of less than 5 MW in the Baton Rouge Nonattainment Area or less than 10 ~~megawatts (~~MW~~)~~ in the Region of Influence;

3. stationary internal combustion engines as follows:

a. rich-burn engines with a rating of less than 150 horsepower (Hp) in the Baton Rouge Nonattainment Area or less than 300 ~~horsepower (~~Hp~~)~~ in the Region of Influence; and

b. lean-burn engines with a rating of less than ~~320~~150 Hp in the Baton Rouge Nonattainment Area or less than 1500 Hp in the Region of Influence; ~~and~~

~~c. lean-burn engines with a rating of less than 1500 Hp in the Region of Influence;~~

4. – 7. …

8. any point source during start-up and shutdown as defined in LAC 33:III.111 or during a malfunction as defined in 40 CFR Section 60.2 (This exemption does not apply to units that are shut down intentionally on a routine basis—more than once per month.);

9. – 20. …

D. Emission Factors

1. The following table~~s~~ list~~s~~ NO_x emission factors that shall apply to affected point sources located at affected facilities in the Baton Rouge Nonattainment Area or the Region of Influence.

Table D-1A. Emission Factors for Sources in the Baton Rouge Nonattainment Area		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Electric Power Generating System Boilers:		
Coal-fired	>/= 40 to <80 MMBtu/Hour	0.50 pound/MMBtu

Table D-1A. Emission Factors for Sources in the Baton Rouge Nonattainment Area		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
	>/= 80 MMBtu/Hour	0.21 pound/MMBtu
Number 6 Fuel Oil-fired	>/= 40 to <80 MMBtu/Hour	0.30 pound/MMBtu
	>/= 80 MMBtu/Hour	0.18 pound/MMBtu
All Others (gaseous or liquid)	>/= 40 to <80 MMBtu/Hour	0.20 pound/MMBtu
	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Industrial Boilers	>/= 40 to <80 MMBtu/Hour	0.20 pound/MMBtu
	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Process Heater/Furnaces:		
Ammonia Reformers	>/= 40 to <80 MMBtu/Hour	0.30 pound/MMBtu
	>/= 80 MMBtu/Hour	0.23 pound/MMBtu
All Others	>/= 40 to <80 MMBtu/Hour	0.18 pound/MMBtu
	>/= 80 MMBtu/Hour	0.08 pound/MMBtu
Stationary Gas Turbines:		
Peaking Service, Fuel Oil-fired	>/= 5 to <10 MW	0.37 pound/MMBtu
	>/= 10 MW	0.30 pound/MMBtu
Peaking Service, Gas-fired	>/= 5 to <10 MW	0.27 pound/MMBtu
	>/= 10 MW	0.20 pound/MMBtu
All Others	>/= 5 to <10 MW	0.24 pound/MMBtu[b]
	>/= 10 MW	0.16 pound/MMBtu[c]
Stationary Internal Combustion Engines:		
Lean-burn	>/= 150 to <320 Hp	10 g/Hp-hour
	>/= 320 Hp	4 g/Hp-hour
Rich-burn	>/= 150 to <300 Hp	2 g/Hp-hour
	>/= 300 Hp	2 g/Hp-hour

[a] based on the higher heating value of the fuel.

[b] equivalent to 65 ppmv (15 percent O_2, dry basis) with an F factor of 8710 dscf/MMBtu.

[c] equivalent to 43 ppmv (15 percent O_2, dry basis) with an F factor of 8710 dscf/MMBtu.

Table D-1B. Emission Factors for Sources in the Region of Influence		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Electric Power Generating System Boilers:		
Coal-fired	>/= 80 MMBtu/Hour	0.21 pound/MMBtu
Number 6 Fuel Oil-fired	>/= 80 MMBtu/Hour	0.18 pound/MMBtu
All Others (gaseous or liquid)	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Industrial Boilers	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Process Heater/Furnaces:		
Ammonia Reformers	>/= 80 MMBtu/Hour	0.23 pound/MMBtu
All Others	>/= 80 MMBtu/Hour	0.08 pound/MMBtu
Stationary Gas Turbines:		

Table D-1B. Emission Factors for Sources in the Region of Influence		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Peaking Service, Fuel Oil-fired	>/= 10 MW	0.30 pound/MMBtu
Peaking Service, Gas-fired	>/= 10 MW	0.20 pound/MMBtu
All Others	>/= 10 MW	0.16 pound/MMBtu[b]
Stationary Internal Combustion Engines:		
Lean-burn ~~(Region of Influence)~~	>/= 1500 Hp	4 g/Hp-hour
~~Lean-burn (Baton Rouge Nonattainment Area)~~	~~>/= 320 Hp~~	~~4g/Hp-hour~~
Rich-burn	>/= 300 Hp	2 g/Hp-hour

[a] all factors are based on the higher heating value of the fuel.

[b] equivalent to 4~~2~~3 ppmv (15 percent O_2, dry basis) with an F factor of 8710 dscf/MMBtu.

2. – 3. …

4. For all other affected point sources, the emission factors from Subsection D of this Section shall apply as the mass of NO_x emitted per unit of heat input (pounds NO_x per MMBtu or grams NO_x per Hp-hour), on a 30-day rolling average basis. Alternatively, a facility may choose to comply with a cap as detailed in Paragraph D.3 of this Section, provided that a system, approved by the department, is installed, calibrated, maintained, and operated to demonstrate compliance.

D.5. – F.1. …

a. An owner or operator may obtain approval to install and operate $NO_{~~x~~x}$ control equipment that does not result in ammonia emissions above the minimum emission rate (MER) in LAC 33:III.Chapter 51 by submitting documentation in accordance with LAC 33:III.511. This documentation shall include an estimate of any carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10}), and/or volatile organic compound (VOC) emission increases associated with the NO_x control technology. If approved, the administrative authority shall grant an authorization to construct and operate in accordance with LAC 33:III.501.C.3. Any appropriate permit ~~revision~~ application reflecting the emission reduction shall be submitted to the department and deemed administratively complete no later than 180 days after commencement of operation and in accordance with the procedures of LAC 33:III.Chapter 5.

1.b. - 4. …

5. Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR) Considerations. A significant net emissions increase in NO_x, CO, SO_2, PM_{10}, and/or VOC in accordance with LAC 33:III.504 or 509, that is a direct result of, and incidental to, the installation of NO_x control equipment or implementation of a NO_x control technique required to comply with the provisions of this Chapter shall be exempt from the requirements of LAC 33:III.509 and/or 504, as appropriate, provided the following conditions are met:

a. – b.ii. …

c. notwithstanding the requirements of Table 1 of LAC 33:III.504, ~~any~~ a significant net increase of VOC emissions at an affected facility located in the Baton Rouge Nonattainment Area shall be offset at a ratio of at least 1:1. Offsets shall be surplus, permanent, quantifiable, and federally enforceable and calculated in accordance with LAC 33:III.Chapter 6; and

F.5.d. – G.1. …

2. Emissions testing is required for all point sources that are subject to the emission limitations of Subsection D of this Section or used in one of the alternative plans of Subsection E of this Section. Test results must demonstrate that actual NO_x emissions are in compliance with the appropriate limits of this Chapter. As applicable, CO, SO_2, PM_{10}, ~~oxygen (O_2),~~ ~~NH_3,~~ and VOC shall also be measured if modifications, done to comply with this Chapter, could cause an increase in emissions of any of these compounds. Performance testing of these point sources shall be performed in accordance with the schedule specified in Subsection J of this Section.

G.3. – H. …

1. The owner or operator of boilers that are subject to this Chapter ~~and that have a maximum rated capacity that is equal to or greater than 80 MMBtu/hour~~ shall demonstrate continuous compliance as follows:

a. – b.ii. …

iii. install, calibrate, maintain, and operate a NO_x CEMS to demonstrate continuous compliance with the NO_x emission factors of Subsection D or E of this Section, as applicable. The CEMS shall meet all of the requirements of 40 CFR Part 60.13 and performance specification 2 of 40 CFR 60, Appendix B, or the requirements of 40 CFR Part 75 for units regulated under the Acid Rain Program; and

iv. – vi. …

2. The owner or operator of process heater/furnaces that are subject to this Chapter ~~and that have a maximum rated capacity that is equal to or greater than 80 MMBtu/hour~~ shall demonstrate continuous compliance as follows:

a. – b.vi. …

3. The owner or operator of stationary gas turbines that are subject to this Chapter ~~and that have a megawatt rating based on heat input that is equal to or greater than 10 MW~~ shall demonstrate continuous compliance as follows:

H.3.a. – J.2. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:290 (February 2002), repromulgated LR 28:451 (March 2002), amended LR 28:1578 (July 2002), LR 29:

FISCAL AND ECONOMIC IMPACT STATEMENT
FOR ADMINISTRATIVE RULES LOG #: AQ234

Person Preparing Statement: Paul Heussner
Phone: (225) 219-3576
Dept.: Department of Environmental Quality
Office: Office of Environmental Assessment

Return Address: P. O. Box 4314
Baton Rouge, LA 70821-4314

Rule Title: Control of Emissions of Nitrogen Oxides (NO_x) (LAC 33:III.2201)

Date Rule Takes Effect: Upon Promulgation

SUMMARY
(Use complete sentences)

In accordance with Section 953 of Title 49 of the Louisiana Revised Statutes, there is hereby submitted a fiscal and economic impact statement on the rule proposed for adoption, repeal or amendment. THE FOLLOWING STATEMENTS SUMMARIZE ATTACHED WORKSHEETS, I THROUGH IV AND WILL BE PUBLISHED IN THE LOUISIANA REGISTER WITH THE PROPOSED AGENCY RULE.

I. ESTIMATED IMPLEMENTATION COSTS (SAVINGS) TO STATE OR LOCAL GOVERNMENTAL UNITS (Summary)

There are no known implementation costs or savings to state or local governmental units.

II. ESTIMATED EFFECT ON REVENUE COLLECTIONS OF STATE OR LOCAL GOVERNMENTAL UNITS (Summary)

State government emissions fee collections are estimated to be reduced by a very minimal amount, probably less than $1,000, due to estimated reductions of 70 to 80 tons per year that will result from the changes being made to the rule. Precise numbers are not available.

III. ESTIMATED COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NON-GOVERNMENTAL GROUPS (Summary)

It is anticipated that this rule will affect about 20 facilities that emit between 25 and 50 tons per year of nitrogen oxides in the Baton Rouge ozone nonattainment area. Anticipated costs are believed to be low, because some of these facilities may already be operating at the required level or they may be exempt; but no supporting data is available.

IV. ESTIMATED EFFECT ON COMPETITION AND EMPLOYMENT (Summary)

No significant effect on competition or employment is anticipated.

Signature of Agency Head or Designee

LEGISLATIVE FISCAL OFFICER OR DESIGNEE

Thomas C. Bickham, III, Undersecretary
Typed Name and Title of Agency Head or Designee

Date of Signature

Date of Signature
LFO 7/1/94

FISCAL AND ECONOMIC IMPACT STATEMENT FOR ADMINISTRATIVE RULES

The following information is requested in order to assist the Legislative Fiscal Office in its review of the fiscal and economic impact statement and to assist the appropriate legislative oversight subcommittee in its deliberation on the proposed rule.

A. Provide a brief summary of the content of the rule (if proposed for adoption or repeal) or a brief summary of the change in the rule (if proposed for amendment). Attach a copy of the notice of intent and a copy of the rule proposed for initial adoption or repeal (or, in the case of a rule change, copies of both the current and proposed rules with amended portions indicated).

The proposed rule revises the Chapter 22 control rules for emissions of nitrogen oxides (NO_x). The revision proposes reasonably available control technology (RACT) rules for sources of NO_x emissions in the five-parish Baton Rouge ozone nonattainment area that are subject to the new lower major stationary source threshold of 25 tons per year. The proposed revision also includes rule clarifications.

B. Summarize the circumstances which require this action. If the Action is required by federal regulation, attach a copy of the applicable regulation.

On April 24, 2003, the Environmental Protection Agency reclassified or "bumped up" by operation of law, the Baton Rouge ozone nonattainment area from a classification of "serious" to "severe", effective June 23, 2003 (68 FR 20077). The five-parish Baton Rouge ozone nonattainment area includes the parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge. Under section 182(i) of the 1990 Clean Air Act amendments, serious ozone nonattainment areas reclassified to severe are required to submit State Implementation Plan revisions addressing the severe area requirements for the one-hour ozone National Ambient Air Quality Standard. Under section 182(d), severe area plans must include requirements for RACT rules for sources of NO_x emissions of 25 tons per year, which is the new, lower major source threshold in the five-parish Baton Rouge ozone nonattainment area.

C. Compliance with Act II of the 1986 First Extraordinary Session

(1) Will the proposed rule change result in any increase in the expenditure of funds? If so, specify amount and source of funding.

This proposed rule will not result in any increase in the expenditure of funds.

2) If the answer to (1) above is yes, has the Legislature specifically appropriated the funds necessary for the associated expenditure increase?

(a) ____ Yes. If yes, attach documentation.
(b) ____ No. If no, provide justification as to why this rule change should be published at this time.

This proposed rule will not result in any increase in the expenditure of funds.

FISCAL AND ECONOMIC IMPACT STATEMENT

WORKSHEET

I. A. COSTS OR SAVINGS TO STATE AGENCIES RESULTING FROM THE ACTION PROPOSED

1. What is the anticipated increase (decrease) in costs to implement the proposed action?

There will be no additional costs or savings to state governmental units as a result of this rule.

COSTS	FY 03-04	FY 04-05	FY 05-06
PERSONAL SERVICES			
OPERATING EXPENSES			
PROFESSIONAL SERVICES			
OTHER CHARGES			
EQUIPMENT			
TOTAL	0	0	0
MAJOR REPAIR & CONSTR.	0	0	0
POSITIONS (#)	0	0	0

2. Provide a narrative explanation of the costs or savings shown in "A.1.", including the increase or reduction in workload or additional paperwork (number of new forms, additional documentation, etc.) anticipated as a result of the implementation of the proposed action. Describe all data, assumptions, and methods used in calculating these costs.

   There are no costs or savings associated with the proposed rule. Existing staff will absorb any workload adjustment.

3. Sources of funding for implementing the proposed rule or rule change.

SOURCE	FY 03-04	FY 04-05	FY 05-06
STATE GENERAL FUND			
AGENCY SELF-GENERATED			
DEDICATED			
FEDERAL FUNDS			
OTHER (Specify)			
TOTAL	0	0	0

4. Does your agency currently have sufficient funds to implement the proposed action? If not, how and when do you anticipate obtaining such funds?

   No additional funds are required to implement the proposed action.

B. COST OR SAVINGS TO LOCAL GOVERNMENTAL UNITS RESULTING FROM THE ACTION PROPOSED.

1. Provide an estimate of the anticipated impact of the proposed action on local governmental units, including adjustments in workload and paperwork requirements. Describe all data, assumptions and methods used in calculating this impact.

   No impact on local governmental units is anticipated.

2. Indicate the sources of funding of the local governmental unit which will be affected by these costs or savings.

   No impact on local governmental units is anticipated.

FISCAL AND ECONOMIC IMPACT STATEMENT

WORKSHEET

II. EFFECT ON REVENUE COLLECTIONS OF STATE AND LOCAL GOVERNMENTAL UNITS

A. What increase (decrease) in revenues can be anticipated from the proposed action?

If there is any change in revenues of state government it will be extremely small, less than $1000. There is no effect on local government.

REVENUE INCREASE/DECREASE	FY 03-04	FY 04-05	FY 05-06
STATE GENERAL FUND	< $1000 decrease	< $1000 decrease	< $1000 decrease
AGENCY SELF-GENERATED			
RESTRICTED FUNDS*			
FEDERAL FUNDS			
LOCAL FUNDS			
TOTAL	< $1000 decrease	< $1000 decrease	< $1000 decrease

*Specify the particular fund being impacted.

B. Provide a narrative explanation of each increase or decrease in revenues shown in "A." Describe all data, assumptions, and methods used in calculating these increases or decreases.

State government emissions fees collections are estimated to be reduced by a very minimal amount, probably less than $1,000 due to emissions reductions that will result from the changes being made to the rule. Precise numbers are not available.

III. COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NONGOVERNMENTAL GROUPS

A. What persons or non-governmental groups would be directly affected by the proposed action? For each, provide an estimate and a narrative description of any effect on costs, including workload adjustments and additional paperwork (number of new forms, additional documentation, etc.), they may have to incur as a result of the proposed action.

The proposed rule affects subject facilities in the Baton Rouge Nonattainment Area (parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge). About 20 additional facilities that emit between 25 and 50 tons per year of NO_x will be affected. Additionally, because the capacity threshold for affected point sources is being lowered, some currently-regulated facilities will also be affected. Estimated costs are believed to be low, but no supporting data is available.

B. Also provide an estimate and a narrative description of any impact on receipts and/or income resulting from this rule or rule change to these groups.

No estimates of the impact on receipts or income are available.

IV. EFFECTS ON COMPETITION AND EMPLOYMENT

Identify and provide estimates of the impact of the proposed action on competition and employment in the public and private sectors. Include a summary of any data, assumptions and methods used in making these estimates.

No significant effect on competition and employment is anticipated.